

ATTACHMENT 2

SUBMISSION PM & DC BROADHEAD

INVERARY PARK, 40 BROADHEAD LANE, BUNGONIA

OBJECTION TO ARDMORE PARK QUARRY MODIFICATION (MP 07-0155 Mod 3)

AIR QUALITY (DUST)



**Photograph supplied by P Broadhead & D Brodhead taken from
our property looking toward the Ardmore Park Quarry**

AFFECTS OF DUST ON OUR AMENITY

Increased Hours of Operation for product Loading & Transportation

The proposed hours of operation are totally unreasonable for the adjoining & surrounding landowners of the Ardmore Park Quarry.

The current hours of operation are supposed to be 7.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm Saturdays.

To increase these hours to 5.00am - 10.00pm Monday to Friday and 5.00am - 5.00pm Saturdays would mean that neighbours would have to put up with even more dust for 17 hours a day. With strong winds which are predominant in this area the dust can sweep from one direction to the next within minutes. See example in photos below, taken just last Friday 16 February 2018. Trees in the foreground are our boundary to the Ardmore Park Quarry site in the dust. (We have photos with proof of dates & times). These winds were certainly not the strongest we get here.



Winds blowing to the NW 2.00pm 16/2/18



Winds turning W 2.01pm 16/2/18



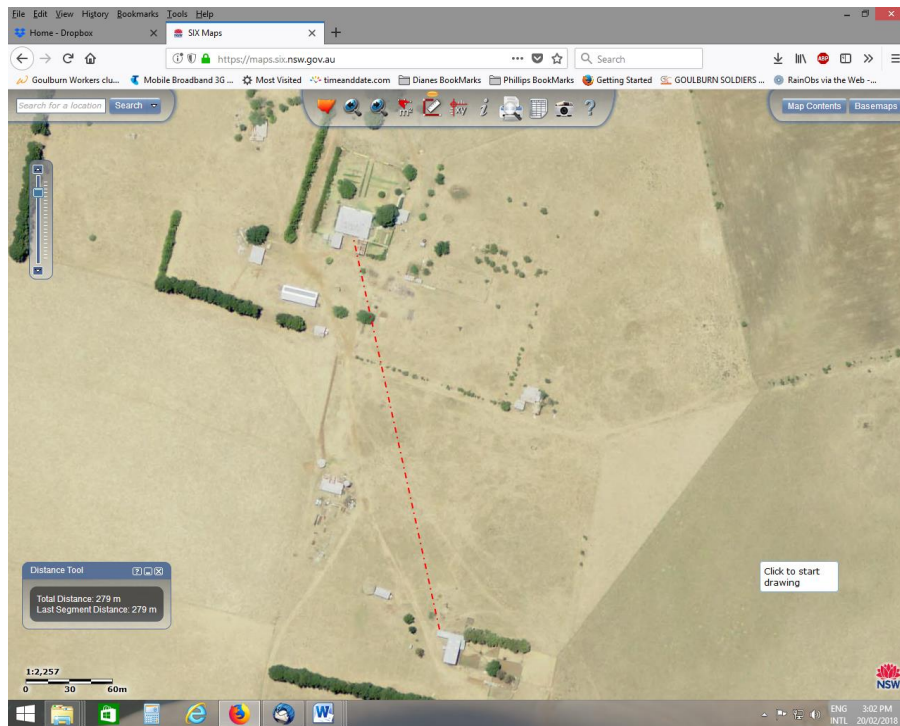
Winds blowing S/SW 2.39 pm 16/2/18



Winds all over the place at 4.50pm 16/2/18

(We also have video footage of the dust on this day)

Being right next door we hear & see the mine operations daily when operating. The early mornings & late evenings often bring with them 'temperature inversions' which amplify the noise and leaves dust sitting in the air. On windy days in particular that dust can blow in many different directions and end up in neighbouring paddocks & water catchment. Unfortunately for us, our paddocks have our machinery sheds, shearing sheds & other outbuildings which we collect our drinking water from. Our amenity is not restricted to a quarter acre area around our house. When you live in the country, your amenity is spread quite far from your residence.



As part of Conditions of Consent, the Ardmore Park Quarry installed a dust monitor within proximity to our residence. We have explained to them that our drinking water comes from the other buildings that are scattered about an area of approx. 300 x 200 metres, the shearing shed being the furthest building from our residence in which we also collect our drinking water. (see above photo), our residence to the top of photo, joined by a red line to the shearing shed at the bottom, machinery sheds, quarters and other buildings scattered about.



This photo was taken from our property 18/2/18 (a series of shots compiled)

The white building on the left side of the photo above is our homestead and further along the internal road (left side of photo), is the shearing shed at the end near the Pine trees. There are other buildings in between and water collection comes from most of the buildings including the Shearing Shed. You can see in the photo the proximity we are to the quarry and by looking at the photos on (Page 2 & 4) you can see that the dust makes its way across our property on a westerly, as does the noise.

In the beginning, we first complained to the Steve & Jason Mikosic at least twice with no response except 'We will look into it', so we then contacted the Planning Department & EPA which I have copy of all the emails that were sent. Some of these photos are below:



15.10.15 3.46pm



16/10/15 11.48am

NOTE: There are no dust reports listed on the Multiquip website for October 2015.



6.9.16 5.08 pm

NOTE: There is no dust report listed on Multiquip website for September 2016.



3/2/17 2.45 pm

This dust is blowing in a N N/W direction and if you look at the Dust Report Feb 17 – Rep No. 535176 on the Multiquip Website, you will see a Reading of one neighbours Total Solids of 53 g/m2/mth – allowed limit (EPA) is (4g/m2/mth (See Report below/next page)

Certificate of Analysis

Multiquip Aggregates P/L
260 Tenth Ave
Austral
NSW 2179



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or
measurements included in this document are traceable
to Australian/national standards.

Attention: - Steve Mikosic

Report 535176-A
Project name ARDMORE PARK QUARRY
Received Date Feb 22, 2017

Client Sample ID			1	2	3	4
Sample Matrix			Dust Deposition	Dust Deposition	Dust Deposition	Dust Deposition
Eurofins mgt Sample No.			M17-Fe22479	M17-Fe22480	M17-Fe22481	M17-Fe22482
Date Sampled			Feb 11, 2017	Feb 11, 2017	Feb 11, 2017	Feb 11, 2017
Test/Reference	LOR	Unit				
Insoluble Solids	0.1	g/m2/mth	0.8	1.3	1.1	0.5
Soluble Solids	0.1	g/m2/mth	< 0.1	52	1.4	< 0.1
Total Solids	0.1	g/m2/mth	0.8	53	2.4	0.5
Volume (total)*	1	mL	1400	1400	1400	1400



15/10/2017 3.39 pm Sand Processing on a calm day. 25/10/17 S Direction 7.30am toward Heppleston

SW neighbour Mick Heppleston not only receive lots of noise, but also receives all the SW dust as well. His complaints have also been ignored.



Friday 16/2/18 2.38 pm.

Last year we were introduced to Multiquips Liaison Officer, Mick Rogers who insisted that we contact himself in regard to any problems regarding noise, dust, water etc and that he would ensure that we had a response to our issues and for us not to contact the EPA & Planning as we could resolve issues more quickly if we spoke with him direct. He said that if we don't tell him, he doesn't know what is going on and we told him that we do not think it fair that we have to become the policing authority for something they should have under control. He contacted us to see how things were going and we told him about a dust incident, to which he replied that he would look into. He did actually get back to us and said that they were not working that day, to which we told him that we had a photograph with date and time on it to say otherwise. He then said he would get back to us again, which he did and said, that the workers had lied to him about working and that he checked (the logs ?) and discovered that they had been working. We found this not very reassuring and decided to stick with letting the EPA and Planning know what is going on. Why isn't this complaint put in

register of complaints. The Liaison Officer has been telling everyone to call him with their issues and handing out his business cards, not telling them to contact the complaints line. Is this to drop the amount of complaints on the register.

As part of the Conditions of Consent the crushing and screening components of the hard rock processing plant were supposed to be enclosed in sheds to reduce dust & noise to neighbours (see highlighted area below). This has never been done and we have been putting up with the dust for years.

CONDITIONS OF CONSENT WERE GIVEN TO ARDMORE PARK QUARRY FROM THE ENVIRONMENTAL IMPACT STATEMENT (January 2005). Quarry approval was given to Ardmore Park Quarry September 2009.

Taken from the EIS Jan 2005:

In the EIS Jan 2005, Under the safeguards - **4.3.6 Safeguards and Management Procedures** they stated the following highlighted area.

(i) The dust generating components of the hard rock processing plant would be enclosed with limited openings to allow entry and exit of conveyors and access by Multiquip personnel.

In the new Proposed Modifications, they are still pledging to the Condition of Consent. Listed under :

5.5 AIR EMISSIONS - 5.5.3 Design Features, Operational Safeguards, Controls and Management Measures - Particulate Emissions

• *The dust generating components of the hard rock processing plant would be enclosed with limited openings to allow entry and exit of conveyors and access by project personnel.*

But now they want to wait until they make the pit bigger. They have had since 2009 to suppress the dust impact on neighbours and did not honour their Conditions of Consent. They just continued to smother the neighbours with dust ignore their complaints.



(i) This photo was taken **25/10/17** at 7.29am. As you can see from the photo there are no sheds or anything suppressing the dust. They have had over **8 years** since their approval to do something about the dust & noise and yet to date they have not taken neighbours seriously and have not done anything to suppress the dust.



(i) This photo was taken **16/2/18** at 2.44pm from our vacant 100 acre block that adjoins the quarry. As you can see from the photo there are no sheds or anything supressing dust. We are now in the **9th** year since their approval and still by the photos I have taken last Friday, they still continue to do nothing.



(i) This photo was taken **18/2/18** at 2.44pm. As you can see from the photo there is no sheds or anything supressing dust and the Sand Processing is also contributing to further dust. Mine not operating this day as it's a Sunday.

Our properties boundaries are in the foreground, the boundary is where our tree line is. The brown paddock to the left bottom is our 100acre building block that will not be appealing for sale to anybody with the mine next to them.

Increasing the maximum allowable daily truck movements from 88 – 124 per day & amendment of wording of several administrative conditions.

To increase the maximum truck movements would only create more dust on the internal roads and more dust in loading of these trucks. The dust is not suppressed now and supplied dust information questionable.

Taken from the EIS Jan 2005, Under the safeguards - **4.3.6 Safeguards and Management Procedures** they stated the following highlighted area.

(ii) A 10 000 litre water truck would be used to regularly wet the active internal unsealed roads. Watering of the unsealed roads would occur at least 3 times per day with an application of approximately 2L/m² per application.

In the new Proposed Modifications, they have changed the wording of this Condition of Consent. Listed under **5.5 AIR EMISSIONS - 5.5.3 Design Features, Operational Safeguards, Controls and Management Measures - Particulate Emissions to:**

- A **water truck** would be used to regularly wet the active internal unsealed roads. Watering of the unsealed roads would occur at least **once per day** with an application of water (and soil binder as required) at a rate of approximately 2L/m² per application.

To change the Conditions of Consent from 3 times a day to once a day is not going to suppress dust. They don't water the road now except when they know the Planning Department or the EPA are going to visit.

They need to seal all their internal roads and then it won't be a problem for neighbours.



This photo is taken at 3.53pm on 5/10/17.

This shows no commitment to using the water trucks .



This photo is taken at 2.44 pm on 16/2/18 from just past our work shed at the back of the house.

This shows no commitment to using the water truck. The hard rock processing is on the right and the white dust that runs to the south of the property of the left is the road that goes to the sand processing area. Clearly no watering of roads is happening.

(ii) *Multiquip would minimise the areas of surface disturbance available for wind erosion at any one time through ensuring that clearing and soil stripping is limited to the area required for immediate extraction activities and conducting progressive rehabilitation on available areas.*

(iii) *Topsoil stockpiles, acoustic bund walls and areas where landform preparation is complete would be seeded with either native or pasture species to assist in stabilising the exposed surface.*



This photo is taken at 2.44 pm on 18/2/18 from our property. Our boundary is the trees in the foreground. It gives a more accurate picture of what is actually going on here.

Considering this mine has been taking product out with approval for over 8 years, it seems to still be denude of any plantings.

The sand processing area is quite large now.

QUESTIONABLE INFORMATION/DATA

Note: Information taken from the Air Quality Impact Assessment – Appendix 8 is displayed in Italics.

Air quality Impact Assessment - Appendix 8

3.2 DUST DEPOSITION

Nuisance dust deposition is regulated through the stipulation of maximum permissible dust deposition rates. The NSW EPA impact assessment goals for dust deposition are given in Table 3 illustrating the allowable increment in dust deposition rates above ambient (background) dust deposition rates which would be acceptable so that dust nuisance could be avoided.

Table 3
Dust Deposition Criteria

Averaging Period	Maximum Increase in Dust Deposition	Maximum Total Dust Deposition
Annual	2g/m ² /month	4g/m ² /month

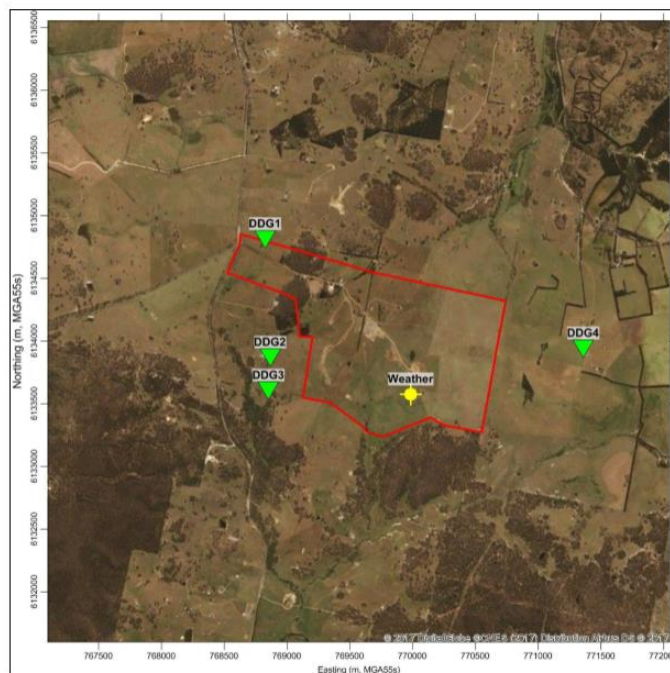
4.2 AMBIENT AIR QUALITY MONITORING DATA

Multiquip maintains a network of dust deposition gauges about the Quarry Site. Data from these monitoring locations have been collated and presented in this report (Section 4.2.4). The location of the dust deposition gauge network, along with the on-site meteorological station, are illustrated in Figure 6.

ENVIRONMENTAL ASSESSMENT
Appendix 8

MULTIQUIP QUARRIES
Ardmore Park Quarry – Modification 3 of PA 07_0155
Report No. 625/24

Figure 6 Quarry dust deposition and weather station monitoring locations



4.2.4 Background Dust Deposition

As discussed, there is a network of four dust deposition gauges about the Quarry Site (see Figure 6). Historical data recorded between 2013 and 2017 from these stations was provided by Multiquip and analysed for this assessment. Based on the wind direction profile recorded at the Quarry (see Section 5.2), the dust deposition gauge DDG1 is located at a position outside of the dominant recorded wind directions (westerly, north-easterly and south-easterly). Therefore, this monitoring location is more commonly “up-wind” of the Quarry and is considered to be the best indicator of background dust deposition levels.

For each site, there are missing months of data during each year between 2013 and 2016 from which to calculate annual average dust deposition for background purposes. **The most recent and complete 12-month period occurs between November 2016 and October 2017**, with annual average dust deposition levels (reported as total insoluble solids) as follows:

- DDG1 – 0.6g/m²/month;
- DDG2 – 1.1g/m²/month;
- DDG3 – 0.6g/m²/month; and
- DDG4 – 0.4g/m²/month.

Monthly dust deposition results recorded about the Quarry Site between November 2016 and October 2017 are illustrated in **Figure 9**.

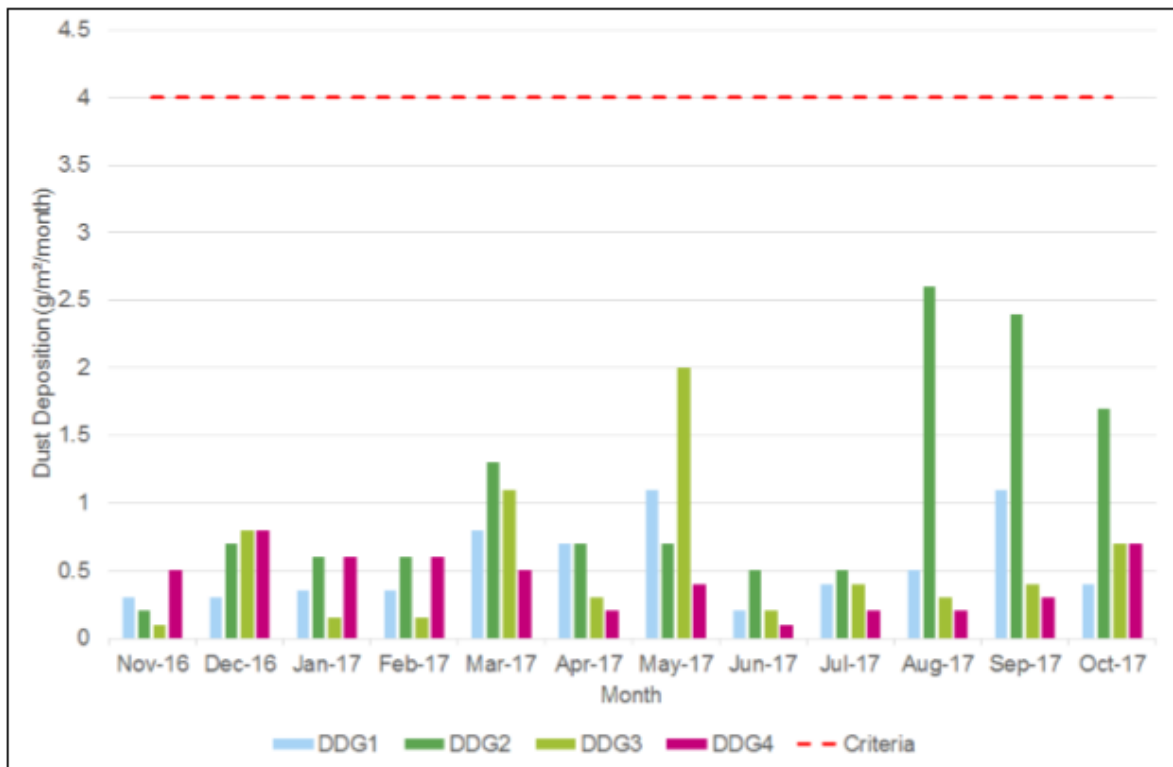


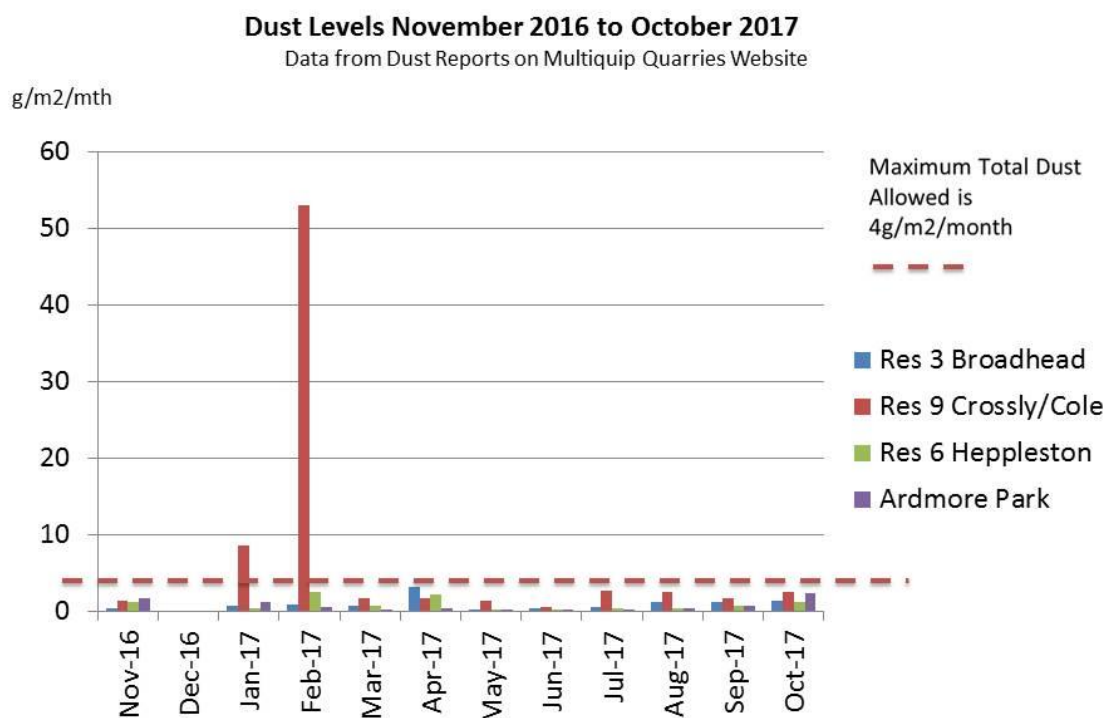
Figure 9 Recorded Monthly Average Dust Deposition Levels – Quarry Monitoring Network – November 2016 to October 2017

The above graph and the previous page is information supplied by Multiquip by Appendix 8 – Air Quality Impact Assessment (AQIA) to which we have studied and found some questionable information and data.

The graph above (Figure 9) in the AQIA is based on data from a 12 month period of Nov 2016 to Oct 2017. Looking at the above graph it looks as though the highest reading is just over **2.5g/m2/month** in August for DDG2 which is the Quarry. The highest reading for DDG3 (Heppleston) it looks like **2g/m2/month** in May 17. DDG4 (Broadhead) it looks like **0.8 g/m2/month** and for DDG1 (Crossley/Cole) it would be May & Sept equal at just over **1g/m2/month**. All quite low figures for the dust that we get.

We downloaded all the available reports from the [Multiquip Quarries Website](#) (Air Quality Monitoring) for the period November 2016 to October 2017 as per the graph that was supplied by Multiquip so we could compare the “actual facts” and found a very different set of data which I have put into a graph below.

Firstly we noted that there is no Report for December on the website so a complete 12 months is not there. Then we noted that in the February 2017 Report that the highest recording was for 2 - Dust Deposition (DDG1- Crossley/Cole) which Total Solids were **53** that’s 49 over the allowed limit. (See page four of this submission) This is not reflected in the graph above at all.



We put together a graph with the reports listed on the Multiquips Website for the same period and came up with the above graph. The highest readings for this period for Total Solids for the neighbours are as follows: DDG1 Crossley/Cole (Res9) **53g/m2/month**. DDG2 Ardmore Park **2.3g/m2/month**. DDG3 Heppleston (Res 6) **2.4g/m2/month** and DDG4 Broadhead (Res 3) **3.1g/m2/month**

The dotted red line is the Maximum Total Dust Allowed and the correct information reflects the correct dust levels for this period. The Graph Supplied in the Appendix 8 Air Quality Assessment Figure 9 is misleading.

The NSW EPA impact assessment goals for dust deposition are given in Table 3

Table 3
Dust Deposition Criteria

Averaging Period	Maximum Increase in Dust Deposition	Maximum Total Dust Deposition
Annual	2g/m2/month	4g/m2/month

The other factor to consider is that for around 4 months or maybe more in 2017 the processing equipment was not operating as the machinery was away at the Olssons Shale Quarry, Middle Arm that Mulitquip were running near Crookwell. So the dust levels for this period would be very minimal in comparison to other years.

We decided to take a closer look at our dust readings so we downloaded and checked each report and have listed below the Total Solids from all the Reports that are listed on the Multiquip Website.

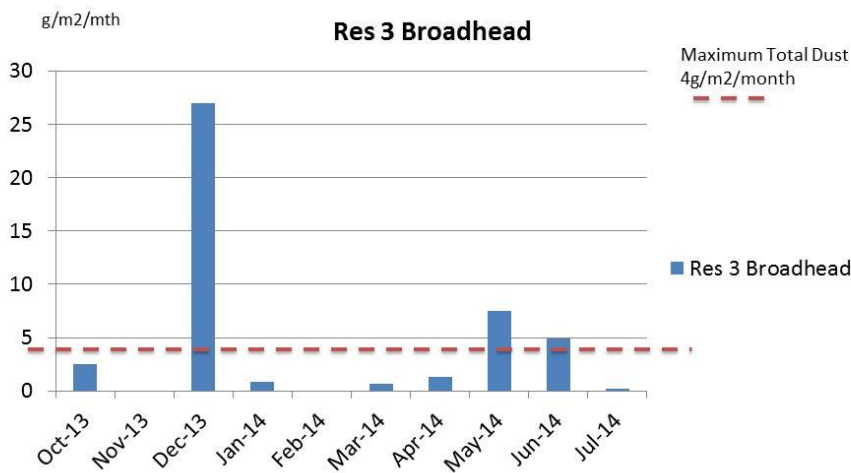
Many of the reports were not listed on the website for years and only more recently have they been put up which is a little late considering it would have been good to know when it happened. They have not been very professional and forthcoming with information that affects neighbours. Once again Self Monitoring not working.

**LIST OF DATA FROM AIR QUALITY REPORTS ON MULTIQUIP QUARRIES WEBSITE
REGARDING INVERARY PARK – BROADHEAD DUST READINGS**

Date of report On Multiquip Quarries Website	Date Sampled	Report Number	Total Solids	Comment
10 Oct 2013	30 Nov 2013	402345-A	2.5	Both Oct and Nov are the same report listed on the website
11 Nov 2013	30 Nov 2013	402345-A	2.5	
12 Dec 2013	2 Dec 2013	405164-A	27	Well over the EPA Recommendations
1 Jan 2014	1 Jan 2014	408121-A	0.8	
2 Feb 2014	Nothing feb	411870-W		Report is only for Resident 9
3 March 2014	1 April	414078-A	0.7	
4 April 2014	5 May 2014	417896-A	1.3	
5 May 2014	3 June 2014	420833-A	7.5	Over EPA recommendations
6 June 2014	3 July 2014	424292-A	4.9	Over EPA recommendations
7 July 2014	31 July 2014	427562-A	0.2	
4 April 2015	31 Mar 2015	458160-A	0.2	
WHERE IS MAY & JUNE				
6 June 2015	30 June 2015	464691-A	0.8	
7 July 2015	31 July 2015	468036-A	0.3	
8 August 2015	Not Provided	472264-A	0.3	Why is the date not provided
NO REPORT				Have Photos of dust this month (15 & 16 October)
9 September 15	30 Sept 2015	476276-A	6.3	Over EPA recommendations
11 November 15				NOTHING LISTED FOR OUR PROPERTY
12 December 15	31 Dec 2015	487010-A	3.5	
1 January 2016	1 February 16	489967-A	0.7	
2 February 2016	4 March 16	494250-A	1.2	
3 March 2016	1 April 2016	497640-A	2.2	
4 April 2016	1 May 2016	504791-A	4.6	Over EPA recommendations
5 May 2016	8 June 2016	505446-A	1.3	
6 June 2016				No June they have the August one in place
No July				
8 August 2016	13 August 16	512598-S	1.0	
NO REPORT				Have Photos of dust this month (dust report missing)
10 October 2016	10 October 16	521531-A	0.3	
11 November 16	10 Nov 2016	531346-A	0.3	Next Report number is lower (2months later)
No December				
01 Jan 2017	10 January 17	531342-A	0.7	Odd this Report number is lower than previous
02 Feb 2017	11 Feb 17	535176-A	0.8	Numbers.
03 March 2017	11 March 17	539778-A	0.7	
04 April 2017	10 April 2017	543812-A	3.1	
05 May 2017	11 May 2017	547775-A	0.2	
06 June 2017	10 June 2017	552660-A	0.4	
07 July 2017	10 July 2017	559905-A	0.5	
08 August 2017	11 August 17	559906-A	1.1	
09 September 17	18 Sept 17	575843-A	1.2	
10 October 2017	17 Oct 2017	575841-A	1.4	
Why only up to October?? We have photos of dust 25 October 2017.				

- 5 times our Total Solids exceeded the Maximum Limit of 4g/m2/month.
- On two separate occasions when dust levels were high and we had proof with photographs Oct 15 & Sept 16 the Reports seem to be missing.
- Why only up to October 2017, we have more photos of dust for October 17 and there is no reports to show levels.
- Nov. 16 - Report Number (531346-A) is 4 numbers earlier than the January one (531342-A) what company backdates report numbers ? There is 2 months difference in these reports and December is missing? All the others are ascending.

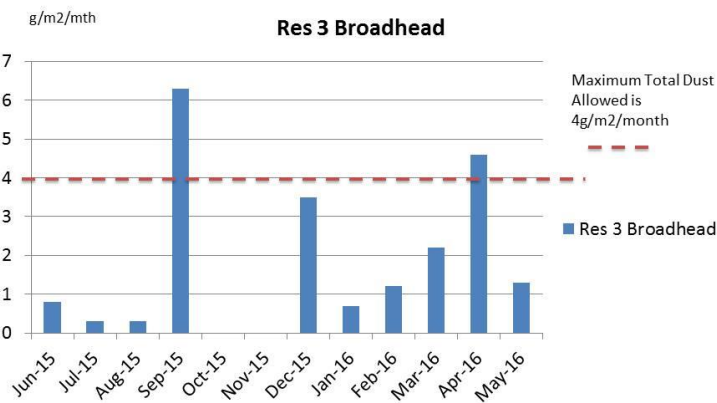
Dust Levels October 2013 to July 2014
Data from Dust Reports on Multiquip Quarries Website



This Report was put together using the Air Quality Reports listed on the Multiquip Website 2013 – 2014

Over Maximum levels 3 times.

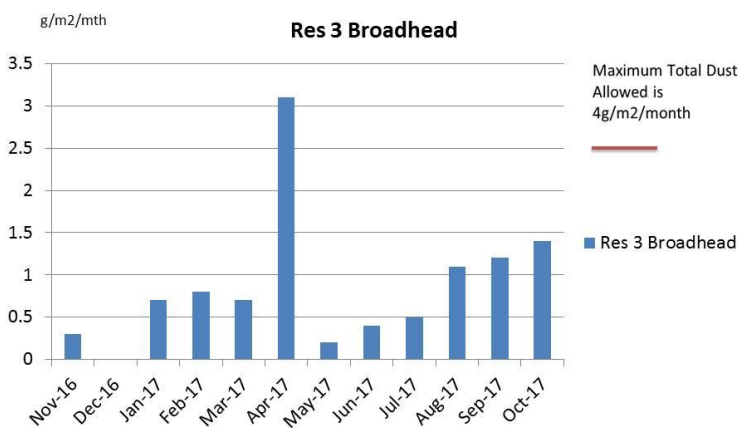
Dust Levels June 2015 to May 2016
Data from Dust Reports on Multiquip Quarries Website



This Graph was put together using the Air Quality Reports listed on the Multiquip Website 2015 – 2016

Over Maximum levels 2 times.

Dust Levels November 2016 to October 2017
Data from Dust Reports on Multiquip Quarries Website



This Graph was put together using the Air Quality Reports listed on the Multiquip Website 2016 – 2017

But remember they were not operating for months as they were away at another Quarry.

One further thing that also makes us feel that self monitoring by the company is not a good idea, is that on 8 February 2018 a little over a week ago, my husband noticed that the dust monitor was broken. We don't bother looking at it as its not in an area where we go often, but he was coming back from the shed and noticed that it was broken. We have no idea how long it was broken and when my husband looked around for the broken bit of glass to pick up, it was nowhere to be seen. As no one goes near this monitor accept Multiquip Personnel, we found it a bit strange that the broken piece of glass was nowhere to be found. Where the monitor is placed, does not lend itself to have impact as it is about 6-7 feet off the ground. How long this has been broken we have no idea. So we also have no idea as to how much dust actually has been going in.



This was taken on 8 February 2018



New Glass in bottle taken 12 February 2018

Operation of Bitumen Pre Coating Plant

The proposed Bitumen Pre Coating Plant would be another source of dust, which would contribute to the neighbours health. This proposed plant would require further extraction of material, further crushing & processing to reach desired sizes or material required for the operations.

It would also have further machinery & trucks creating dust in which to load the product for dispatch.

Increase in size of Extraction Area

The increase in size of the Extraction Area and subsequent annual production would increase the amount of dust to neighbours. We believe the increase of the Extraction area 'to better align machinery' is not the reason for the increase in size. We believe it is so they can produce a reason for them to ask for an increase in their annual production and therefore ask for longer hours to process it and move product.

Acceptance and management of ENM, in addition to Virgin Excavated Natural Material (VENM), as a backfill material

More dust from machinery to excavate the ground for dumping and covering and more trucks transporting this product.

Importing of ENM and VENM to backfill the extraction area to return the land for agricultural production, or other land use sounds great. However, the problem with self-monitoring, it allows for it to become a dumping ground for foul waste like asbestos. It should be signed off on by an independent authority and documentation placed on the Multiquip website for public viewing by the person signing off. They certainly don't put the dust reports on their site regularly like they are supposed to.

Increasing Annual Production from 400,000 to 580,000 tpa & Increasing Truck Movements from 88 to 124

Increasing the Annual Production from 400,000 to 580,000 and Increasing truck movements from 88-124 would create a massive amount of dust on top of what we already endure. This would be from the Sand Processing as well as the Hard Rock, trucks coming and going, Machinery Loading and shifting product. Roads that are never watered and are not sealed would have further truck movements on them creating even more impact. This is a gross violation of the amenity of the neighbours and should not be granted. They have proved over the years that they do not try to suppress dust on neighbours at all and keep records that do not reflect what is actually happening with missing reports and graphs that don't reflect the correct data.

CONCLUSION

The quarry knows that the adjoining neighbours suffer dust, they have been told by every one of them, but they choose to ignore this fact. They are still hiding behind the original dust modelling of the EIS. That information was used because there was no quarry operations to substantiate how much dust it would produce. It was modelled using weather data from Bathurst & Goulburn areas which is different topography.

Once again self-monitoring has not worked for this company. The dust reports are incomplete in months and missing months that relate to dust photographs. How do these reports go missing? These reports could easily be obtained from the company that is supposed to check the samples that are required on a monthly basis, as per conditions of consent. There are discrepancies with report numbers of dust reports that are not in ascending order, there are Figures supplied in Appendix 8 in the proposed modifications that don't match the data that is on the website. There is the question of why a dust funnel was left broken, where was the missing piece of glass. They do not upload dust reports monthly, sometimes we have asked for nearly a years' worth.

The conditions of consent meant that they had to water the roads 3 times a day with a 10,000 litre water truck. They do not water their internal roads, nor try to suppress dust. Now they are asking to reword the Consent to water the roads once a day and no size of the truck. Why would they change this wording if they were committed to suppressing dust. If they can't suppress the road dust, then they should bitumen the internal roads.

The quarry has proven it cannot suppress its dust from the processing plants of the hard rock & sand processing. They should put the plants in a shed immediately as we have all waited long enough. Their approval was granted in 2009 and to expect neighbours to wait any longer until they dig the pit lower is just another excuse to get their approval for modification.

It has been 13 years since they lodged their original EIS, that's 13 years that trees could have grown to help with dust suppression and noise, but have done nothing.

We have been requesting for years to have a dust monitor on our boundary fence to show how much dust continues to come onto our property and still nothing.

The quarry has proven that it is not serious about suppressing dust and impacting neighbours.

The Quarry should be denied the Modifications of any Proposal until they fix the existing problems first.

- **They should be made to produce all the missing dust reports so that we can all see what is actually happening and see the real levels.**
- **Self- Monitoring of the dust should be removed from them and given to independent companies for collecting, monitoring and uploading of dust information. That way we would have records that we can see if we are being contaminated on a monthly basis not every 18 months when they get around to putting up what reports they choose. Transparency and accountability need to be utmost importance.**
- **Sand Processing and Hard Rock Processing should be put in sheds now to suppress dust, no more excuses.**
- **Roads should be sealed internally to help suppress dust on neighbouring properties.**
- **Rows of Trees should be planted to help suppress noise and dust impacts on neighbours.**
- **The quarry should be denied any modifications and production should be stopped immediately until these issues have been fixed first.**

If they cannot do this, they should buy out the affected neighbours.

Phillip & Diane Broadhead

25 February 2018